

**Date of Meeting:** April 2, 2014

**# 15a**

**BOARD OF SUPERVISORS  
BUSINESS MEETING  
ACTION ITEM**

**SUBJECT:** ZOAM 2013-0003, Data Center and Miscellaneous  
Commercial/Industrial Amendments

**ELECTION DISTRICT:** Countywide

**CRITICAL ACTION DATE:** At the pleasure of the Board

**STAFF CONTACTS:** Amy Kresge, Proffer Manager, Zoning Administration  
Nicole C.E. Dozier, Zoning Administrator  
Michael Seigfried, Interim Director, Building and Development

**PURPOSE:** The primary purpose of this application is to amend the Revised 1993 Loudoun County Zoning Ordinance to define and add the new use “data center” to certain zoning districts, subject to performance standards in certain zoning districts.

**RECOMMENDATIONS:**

**Committee:** On March 14, 2014, the Transportation and Land Use Committee (TLUC) voted to recommend approval of ZOAM 2013-0003, subject to the revisions made at the March 14 meeting (3-0-2, Clarke, Higgins absent). Recommendations for each issue reviewed by TLUC are discussed in the Issues Matrix, included as Attachment 1.

**Zoning Ordinance Action Group (ZOAG):** On February 12, 2014, the Zoning Ordinance Action Group (ZOAG) unanimously recommended approval of ZOAM 2013-0003. ZOAG’s recommendations on some issues differ from those of TLUC, as discussed in the Issues Matrix, included as Attachment 1.

**Planning Commission:** On September 24, 2013, the Planning Commission voted to forward ZOAM 2013-0003 to the Board of Supervisors with a recommendation of approval, subject to the revisions made at the September 24, 2013, Planning Commission work session (8-0-1, Dunn absent). The Planning Commission’s recommendations on some issues differ from those of TLUC, as discussed in the Issues Matrix, included as Attachment 1.

**Staff:** Staff concurs with TLUC and recommends approval of ZOAM 2013-0003.

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**BACKGROUND:** The Board of Supervisors (Board) held a public hearing on Zoning Ordinance Amendment (ZOAM) 2013-0003 on November 13, 2013. There were 19 members of

the public who spoke at the hearing. Eleven speakers, including eight affiliated with existing data center operations in the County, expressed concern that the amendments would hinder data center development due to the proposed performance standards. Of particular concern were the proposed noise standards adjacent to residential uses. Eight speakers, consisting of seven residential property owners from The Regency community and a representative from Comstock Partners, LC, on behalf of the residential portion of Loudoun Station, expressed support for the proposed noise standards adjacent to residential uses. Several speakers from The Regency also suggested a 200-foot setback from residential uses and tree preservation requirements be added to the performance standards. Written comment from the data center industry and citizens was also received in advance of the public hearing. At the conclusion of the public hearing, the Board voted to forward the subject amendment to the November 15, 2013 TLUC meeting for further discussion (8-1, Reid opposed).

At the November 15, 2013 TLUC meeting, discussion focused on how to assess noise impacts and ensure compliance with the existing noise standards, as well as an overview of zoning enforcement procedures with respect to noise complaints. In response to questions from the TLUC, staff noted that there are four existing residential communities either bordering or across the street from existing or under construction data centers. Those four residential communities are Loudoun Station, The Regency, Cameron Chase, and Ashby Ponds.<sup>1</sup> Upon further discussion, Chairman York made a motion to request that the ZOAG and the citizens of affected residential communities meet to determine if the distance (i.e. setback) and noise issues could be resolved, with recommendations returning to TLUC by March 2014 or sooner if possible. That motion passed (4-0-1, Clarke absent). In addition, per TLUC's request at the November 15, 2013 meeting, and further approved at the December 4, 2013 Board Business Meeting, a noise consultant was retained to assist TLUC in making a recommendation to the full Board. Miller, Beam & Paganelli, Inc., made a presentation, including a question and answer period, at the January 10, 2014 TLUC meeting.

**ZOAG REVIEW:** In preparation for the December 11, 2013 meeting of ZOAG, staff contacted ZOAG Chairman Milt Herd to discuss TLUC's direction. It was agreed that two citizen representatives should be identified to represent each residential community. Staff contacted the individuals on file with Supervisor Williams' office and participants were secured from Loudoun Station and The Regency. Staff also spoke to representatives of Cameron Chase and Ashby Ponds but those communities chose not to participate. In coordination with the Department of Economic Development (DED), members of the data center industry were also invited to participate in the ZOAG review.

At the December 11, 2013 ZOAG meeting, staff summarized the Board and TLUC meetings and answered questions regarding the proposed text. ZOAG Chairman Milt Herd facilitated the meeting, taking questions and statements from ZOAG members, DED, data center industry agents, citizen representatives, and other members of the public. At the conclusion of the discussion, ZOAG formed a subcommittee to further review the draft text. The subcommittee met on December 16, 2013 and provided staff with a list of questions and requests for

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<sup>1</sup> A fifth community, Morley Corner, was identified in January 2014.

information. These questions included items such as additional information on noise and setback issues as well as prior approvals for data centers and an explanation of vesting provisions.

The subcommittee decided to reconvene on January 15, 2014 in order to attend the January 10, 2014 TLUC meeting and hear the presentation from the noise consultant. At the January 15, 2014 meeting, the subcommittee discussed the presentation by the noise consultant and noted the need for improvement in the existing noise standards. The subcommittee also provided all members of the public in attendance the opportunity to reiterate their concerns. The subcommittee held two additional meetings on January 29 and 30, at which they discussed and edited the draft performance standards.

On February 12, 2014, the ZOAG subcommittee presented their recommendations to the full ZOAG, which decided to endorse the subcommittee's draft text and findings. ZOAG recommends the performance standards be applied to data centers in the CLI (Commercial Light Industry), PD-OP (Planned Development-Office Park), PD-RDP (Planned Development-Research and Development Park) and PD-IP (Planned Development-Industrial Park) zoning districts, but not to those in the PD-GI (Planned Development-General Industry) zoning district. In addition, ZOAG recommended revising the language of the performance standards dealing with principal building facades, screening of mechanical equipment, pedestrian and bicycle facilities, and landscaping abutting residential uses. Table 1 below describes the recommendations and rationale for the text suggested by ZOAG.

<b>TABLE 1: Performance Standards Recommendations</b>		
<b>Section</b>	<b>Recommendation</b>	<b>Rationale</b>
Preamble	Do not apply the performance standards to data centers in the PD-GI zoning district.	The PD-GI zoning district allows more intense industrial uses than the other zoning districts. Additional performance standards should not be applied to data centers in this industrial setting.
(A) Principal Building Facades	Delete text referring to continuous plane surfaces and remove the maximum area requirements for such surfaces. Add reference to undifferentiated surfaces.	Maximum area requirements for continuous plane surfaces are arbitrary. The term undifferentiated surfaces is recommended in conjunction with the required design elements.
(B) Screening of Mechanical Equipment	Delete text referring to the maximum extent feasible.	To the maximum extent feasible is too vague. Replace with an explanatory phrase to clarify the intent of the section.
(C) Exterior Lighting	No major changes recommended.	
(F) Pedestrian and Bicycle Facilities	Delete text requiring sidewalk and trail connections at property boundaries and retain requirement within 500 feet of the property boundary.	This simplifies the text. Any sidewalk or trail at the boundary of the property would also be within 500 feet, so the first sentence requiring sidewalk and trail connections at the property boundary is not needed.

<b>TABLE 1: Performance Standards Recommendations</b>		
<b>Section</b>	<b>Recommendation</b>	<b>Rationale</b>
(H) Adjacent to Residential Uses	Delete all additional noise requirements. Retain 6-foot berm and Type 4 landscaping.	The Zoning Ordinance should not single out one specific use for regulation of noise.

ZOAG recommended deleting the performance standards for minimum building height, screening of off-street parking, and stormwater management. For additional details on ZOAG's work, please refer to the "Zoning Ordinance Action Group (ZOAG) - Data Center report" dated February 18, 2014, included as Attachment 2.

Following ZOAG's review, staff met with members of The Regency community at their request to discuss ZOAG's recommendations. The residents noted that a requirement to retain and preserve mature trees was preferred over installation of a new 6-foot berm and Type 4 landscaping in cases where existing mature trees exist.

**TLUC REVIEW:** Recommendations for each issue reviewed by TLUC are discussed in the Issues Matrix, included as Attachment 1. Certain issues are discussed in additional detail below.

- *Listing data center as a permitted use in the PD-GI zoning district (Attachment 1, Issue 3)* Supervisor Volpe and Chairman York support listing data center in the PD-GI zoning district while Supervisor Delgaudio does not support listing data center in the PD-GI zoning district. Additionally, Supervisor Delgaudio requested that staff get input on this issue from Leo Schefer, President of the Washington Airports Task Force. The Department of Economic Development contacted Mr. Schefer's office, but did not receive information in time to be included in this action item. Staff will provide an update at the April 2 meeting.
- *Data Center Performance Standard Regarding Principal Building Facades (Attachment 1, Issue 5)* TLUC supports a performance standard regulating principal building facades. Additional information was requested regarding how much additional cost this would add to the building. The Department of Economic Development requested quotes from data center developers, but did not receive information in time to be included in this action item. Staff will provide an update at the April 2 meeting.
- *Data Center Performance Standard Regarding Screening of Mechanical Equipment (Attachment 1, Issue 6)* TLUC supports a performance standard regulating the screening of ground level and rooftop mechanical equipment from adjacent roads and properties. Pursuant to this section, mechanical equipment can be located interior to the site and screened by the data center building. When mechanical equipment is located at the rear of building but still backs up to and is visible from an adjacent road, such equipment must be screened by a visually solid element that is constructed of materials compatible with those used in the exterior construction of the data center building. Finally, staff recommends a further update to the draft text to allow the Zoning Administrator to

eliminate the screening of mechanical equipment if there are no adverse impacts to adjoining roads or properties.

- *Data Center Performance Standard Regarding Pedestrian and Bicycle Facilities (Attachment 1, Issue 10)* TLUC supports a performance standard requiring sidewalks and/or trails. Clarification to the draft text was requested to require the sidewalk or trail along the perimeter of a public road only, as opposed to the interior of the site, to avoid conflicts with typical site security for data centers. The draft text has been revised accordingly. In addition, TLUC also expressed support for additional requirements for pedestrian and bicycle facilities in commercial zoning districts. Staff will bring forward an issues paper and draft action plan on this topic as a separate item for the Board's consideration.
- *Data Center Performance Standards Abutting Residential (Attachment 1, Issue 12)* TLUC supports eliminating any additional noise requirements for data center uses, but maintaining the requirement for a berm and landscaping abutting residential uses. TLUC requested that the draft text be clarified to state the abutting residential zoning districts where the berm would apply. Staff has added text referring to property that is not developed for commercial or industrial uses located in the predominantly residential districts. Per TLUC's direction, staff has also added an option to save existing vegetation instead of installing the berm and landscaping.

**ISSUES:** There are no outstanding issues with ZOAM 2013-0003. The final draft text has been revised to incorporate TLUC's recommendations and to use consistent terms and remove ambiguous language. Subsequent to the TLUC meeting, the ZOAG subcommittee on data centers provided input to staff confirming their support of the final draft text, which is included as Attachment 3.

It is important to note that utility substations will continue to have their own set of performance standards under Section 5-616 of the Zoning Ordinance, separate and distinct from the performance standards for data centers. The only change to utility substations with this Ordinance amendment is to insert a provision to allow adjustment of plantings in the Type 4 Buffer Yard required by the existing performance standard in Section 5-616(D).

**PUBLIC COMMENT:** Written public comment received since the March 14, 2014 TLUC meeting is included as Attachment 4.

**FISCAL IMPACT:** Approval of ZOAM 2013-0003 is anticipated to result in a reduction in time and cost to develop data center uses, due to the listing of data centers as a permitted use and the elimination of a special exception to achieve .60 FAR in the PD-IP zoning district. Instead of requiring legislative approval, the majority of data center uses would require only administrative approval. This would result in a reduction in land development application fees due to fewer special exception applications.

**DRAFT MOTIONS:**

1. I move that the Board of Supervisors approve ZOAM 2013-0003, Data Center and Miscellaneous Commercial/Industrial Amendments, as set forth in Attachment 3 of the Action Item for the Board of Supervisors April 2, 2014 Business Meeting.

OR

2. I move an alternate motion.

**ATTACHMENTS:**

1. Issues Matrix
2. ZOAG - Data Center report dated February 18, 2014
3. Final draft text dated April 2, 2014
4. Public comment

**ZOAM 2013-0003: DATA CENTER AND MISCELLANEOUS COMMERCIAL/INDUSTRIAL AMENDMENTS**  
**ISSUES MATRIX**  
**BOARD OF SUPERVISORS BUSINESS MEETING, APRIL 2, 2014**

ZONING ORDINANCE SECTION	ZONING ORDINANCE TEXT PROPOSED	STAKEHOLDER RECOMMENDATION	STAFF COMMENTS	ZOAG RECOMMENDATION	PLANNING COMMISSION RECOMMENDATION	TLUC RECOMMENDATION
<b>PD-OP - Planned Development-Office Park</b>						
1. §4-306(C)	<b>Floor Area Ratio.</b> .60 maximum; <u>up to 1.0 by Minor Special Exception</u> ; up to 2.0 maximum by Special Exception.	N/A	Does not support recommended change. FAR above .60 and up to 1.0 is a high intensity office district that should be fully reviewed for compliance with <u>Revised General Plan</u> policies.	Supports recommended change to reduce the time for a legislative process and promote commercial development.	Does not support recommended change and concurs with staff comments.	Concurs with Planning Commission and staff recommendations to make no changes to FAR in the PD-OP zoning district.
<b>PD-IP - Planned Development-Industrial Park</b>						
2. §4-506(C)	<b>Floor Area Ratio.</b> <b>There are two options:</b>  <b>Option 1:</b> <del>.40</del> <u>.60</u> maximum; up to <del>.60</del> <u>1.0</u> by Special Exception.  <b>Option 2:</b> <del>.40</del> <u>.60</u> maximum; up to <del>.60</del> <u>1.0</u> by <u>Minor</u> Special Exception.	.60 maximum.	Supports Option 1. Recommends Special Exception process for FAR above .60 and up to 1.0; and is consistent with the recommendation for the PD-OP zoning district. 1.0 FAR is a high intensity industrial/office development that should be fully reviewed for compliance with <u>Revised General Plan</u> policies.	Supports Option 2. Recommends allowing up to 1.0 FAR by Minor SPEX to reduce the time for a legislative process and promote commercial development.	Supports Option 1. Concurs with staff comments.	Supports Option 1. Concurs with Planning Commission and staff recommendations to allow FAR above .60 and up to 1.0 by Special Exception (not Minor Special Exception) in the PD-IP zoning district.
<b>PD-GI - Planned Development-General Industry</b>						
3. §4-603(QQ)	<b>Permitted Uses.</b> <u>Data center.</u>	N/A	Supports recommended change, including the Feb. 12, 2014, ZOAG recommendation to remove application of the performance standards to data centers in the PD-GI zoning district. Data center uses are consistent with the purpose and intent of the PD-GI zoning district, which is established primarily for medium industrial uses. This was also a key request of the data center industry based on input received at a roundtable discussion hosted by DED in February 2013.	Supports recommended change. On Feb. 12, 2014, ZOAG also recommended removing application of the performance standards to data centers in the PD-GI zoning district.	Does not support recommended change due to concern over economic impact. Data centers could drive up the cost of PD-GI zoned land, leaving heavier industrial users with less affordable land upon which to locate. Also, the limited acreage of the district and district's location in proximity to Dulles International Airport were a concern since data centers typically occupy large areas of land, which may preclude airport support uses.	Supervisor Volpe and Chairman York support listing data center in the PD-GI zoning district. Supervisor Delgaudio does not support listing data center in the PD-GI zoning district. Supervisor Delgaudio also requests that staff get input on this issue from Leo Schefer, President of the Washington Airports Task Force.
4. §4-606(C)	<b>Floor Area Ratio.</b> .40 maximum; <u>up to .60 maximum by Special Exception</u> .	N/A	Supports recommended change, provided data center is a listed use in the PD-GI zoning district. The majority of other PD-GI uses would not typically develop at an FAR above .40.	Supports recommended change.	Concurs with staff comments that FAR increase is not necessary if data center is not a listed use.	Concurs with Planning Commission, ZOAG, and staff recommendations to allow FAR above .40 and up to .60 by Special Exception in the PD-GI zoning district.

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SECTION 5-600 ADDITIONAL REGULATIONS FOR SPECIFIC USES							
5.	<a href="#">§5-664(A)</a>	<p><b>Data Center.</b> The following standards shall apply to data centers in the CLI, PD-OP, PD-RDP, and PD-IP zoning districts.</p> <p><b>(A) Principal Building Facades.</b> Principal building facades shall include all building facades that face adjacent public roads. Principal building facades associated with new construction shall meet the following standards:</p> <p><b>(1)</b> Principal building facades shall avoid the use of undifferentiated surfaces by including at least two (2) of the following design elements: change in building height, building step-backs or recesses, fenestration, change in building material, pattern, texture, color, or use of accent materials.</p> <p><b>(2)</b> When a building has more than one principal facade, such principal building facades shall be consistent in terms of design, materials, details, and treatment.</p>	No Data Center shall be located on a lot which is adjacent to or within ____ feet of an arterial or collector road. (An exact distance was not specified in this recommendation.)	Supports a performance standard to regulate building facades. This performance standard applies to new construction only and ensures that building facades facing a public right-of-way will incorporate design elements to vary building characteristics and avoid the use of undifferentiated surfaces.	Supports revised text recommended on Feb. 12, 2014. The proposed text is similar to the text supported by the Planning Commission, but the paragraphs have been reordered and the text has been revised to provide clarity.	The Planning Commission has not reviewed the proposed text. However, the proposed text is similar to the language supported by the Planning Commission, as provided in the Nov. 13, 2013, Board of Supervisors public hearing staff report.	Concurs with Planning Commission, ZOAG, and staff recommendations to adopt a performance standard regulating principal building facades, but requests clarification as to how much cost this would add to the building.
6.	<a href="#">§5-664(B)</a>	<p><b>(B) Screening of Mechanical Equipment.</b> In order to minimize visibility from adjacent roads and adjacent properties, ground level and roof top mechanical equipment shall be screened. This screening may be provided by a principal building. Mechanical equipment not screened by a principal building shall be screened by a visually solid fence, screen wall or panel, parapet wall, or other visually solid screen that shall be constructed of materials compatible with those used in the exterior construction of the principal building. Notwithstanding the requirements of this section, mechanical equipment located in a manner found to have no adverse impact on adjacent roads and adjacent properties, as determined by the Zoning Administrator, shall not be required to be screened.</p>	Mechanical equipment including rooftop equipment, but excluding antennae, shall be screened from view from street level of any streets abutting the lot on which the data center use is located.	Supports a performance standard requiring screening of mechanical equipment. This performance standard ensures screening of all mechanical equipment, which is consistent with conditions received on Special Exception applications for data center uses.	Supports revised text recommended on Feb. 12, 2014. The proposed text is very similar to the text supported by the Planning Commission, but the text has been revised to provide clarity.	The Planning Commission has not reviewed the proposed text. However, the proposed text is very similar to the language supported by the Planning Commission, as provided in the Nov. 13, 2013, Board of Supervisors public hearing staff report.	Concurs with Planning Commission, ZOAG, and staff recommendations to adopt a performance standard regulating screening of mechanical equipment.

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ZONING ORDINANCE SECTION		ZONING ORDINANCE TEXT PROPOSED	STAKEHOLDER RECOMMENDATION	STAFF COMMENTS	ZOAG RECOMMENDATION	PLANNING COMMISSION RECOMMENDATION	TLUC RECOMMENDATION
7.	<a href="#">§5-664(C)</a>	<a href="#">(C) Exterior Lighting.</a> All exterior lighting shall be designed and constructed with cutoff and fully shielded fixtures that direct light downward and into the interior of the property and away from adjacent roads and adjacent properties.	N/A	Supports a performance standard to regulate exterior lighting. This performance standard is consistent with lighting conditions received on Special Exception applications for data center uses.	Supports revised text recommended on Feb. 12, 2014. The proposed text is very similar to the text supported by the Planning Commission, but the text has been revised to provide clarity.	The Planning Commission has not reviewed the proposed text. However, the proposed text is very similar to the language supported by the Planning Commission, as provided in the Nov. 13, 2013, Board of Supervisors public hearing staff report.	Concurs with Planning Commission, ZOAG, and staff recommendations to adopt a performance standard regulating exterior lighting.
8.	<a href="#">§5-664(D)</a>	<a href="#">(D) Building Height.</a> New construction shall be a minimum of twenty-six (26) feet in height.	N/A	Supports the Feb. 12, 2014, ZOAG recommendation to delete this performance standard.	Delete this performance standard. The minimum building height applicable to office uses in the PD-IP zoning district should not be required of data centers.	The Planning Commission supported this performance standard.	Concurs with ZOAG and staff recommendations to delete this performance standard.
9.	<a href="#">§5-664(E)</a>	<a href="#">(E) Off-street Parking.</a> Where permitted by the district regulations, off-street parking located between the building and arterial or major collectors roads shall be screened from view of said roads.	Parking areas shall be screened to comply with the requirements of Section 5-653(B).	Supports the Feb. 12, 2014, ZOAG recommendation to delete this performance standard.	Delete this performance standard. Screening of off-street parking is adequately covered by the district regulations.	The Planning Commission supported this performance standard.	Concurs with ZOAG and staff recommendations to delete this performance standard.
10.	<a href="#">§5-664(F)</a>	<a href="#">(F) Pedestrian and Bicycle Facilities.</a>  <a href="#">(1) Provision of Sidewalks and/or Trails.</a> Sidewalks and/or trails for pedestrian and/or bicycle access shall be provided, at a minimum, along any side of a public road that abuts the property upon which the data center is located.  <a href="#">(2) Sidewalk and/or Trail Connections.</a> To provide for future sidewalk and/or trail connections, the sidewalks and/or trails for pedestrian and/or bicycle access provided pursuant to Section 5-664(D)(1) above shall be equivalent to any other sidewalk and/or trail for pedestrian and/or bicycle access that is located on the same side of the public road, and within 500 feet, of the property upon which the data center is located.	N/A	Supports a performance standard for sidewalks and trails. This performance standard ensures provision of pedestrian and bicycle facilities and is consistent with conditions received on Special Exception applications for data center uses.	Supports revised text recommended on Feb. 12, 2014. The proposed text retains the requirement for connectivity, but the text has been revised to provide clarity.	The Planning Commission has not reviewed the proposed text. However, the proposed text maintains the intent of the language supported by the Planning Commission, as provided in the Nov. 13, 2013, Board of Supervisors public hearing staff report.	Concurs with Planning Commission, ZOAG, and staff recommendations to adopt a performance standard requiring sidewalks and/or trails, but recommends clarification to require the sidewalk or trail along the road at the perimeter of the site. Also supports adoption of a resolution of intent to amend the Zoning Ordinance to require pedestrian and bicycle facilities in commercial zoning districts.
11.	<a href="#">§5-664(G)</a>	<a href="#">(G) Stormwater Management.</a> Unless stormwater management is to be provided by an existing approved off-site storm water management facility, stormwater management and Best Management Practices shall be used on-site, in accordance with the Virginia Stormwater Management Handbook and the Loudoun County Facilities Standards Manual.	N/A	Supports the Feb. 12, 2014, ZOAG recommendation to delete this performance standard.	Delete this performance standard. Regulation of stormwater management is adequately covered by the Facilities Standards Manual and State regulations.	The Planning Commission supported this performance standard.	Concurs with ZOAG and staff recommendations to delete this performance standard.

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12.	<u>§5-664(H)</u>	<u>(H) Buffer Yard Requirement. In lieu of the buffer yard requirement in Table 5-1414(A) of Section 5-1414, any side/rear yard abutting property that is not developed for commercial or industrial uses located in any one of the following zoning districts: CR, JLMA, TR, R, PD-H, PD-CV, PD-RV, and PD-AAAR shall include Type 4 buffer yard required plantings installed on an earthen berm that has a minimum height of six (6) feet and a slope not steeper than 2:1. The Type 4 buffer yard width and required plantings shall be as set forth in Table 5-1414(B) of Section 5-1414 and installed in accordance with the requirements of Section 5-1400, Buffering and Screening. Notwithstanding the requirements of this section, use of natural topography and preservation of existing vegetation, supplemented by new vegetation, if needed, may be substituted for the above requirements when found by the County Urban Forester to provide screening at the density, depth, and height equivalent to the Type 4 buffer yard with earthen berm.</u>	N/A	Supports a performance standard for additional landscaping abutting residential uses. The berm and landscaping requirements mitigate the visual impact of data center uses located adjacent to residential uses.	Supports revised text recommended on Feb. 12, 2014. The proposed text deletes any additional noise requirements for data center uses, but maintains the Planning Commission recommendation for a berm and landscaping abutting residential uses. The proposed text has also been revised to provide clarity.	The Planning Commission supported this performance standard, but also recommended standards requiring a noise study prior to site plan approval and noise testing prior to issuance of an occupancy permit.	Concurs with ZOAG and staff recommendations to eliminate any additional noise requirements for data center uses, but maintains the Planning Commission recommendation for a berm and landscaping abutting residential uses. Also recommends clarifying the abutting residential zoning districts where the berm would apply and adding an option to save mature trees instead of installing the berm and landscaping.

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## Zoning Ordinance Action Group (ZOAG) - Data Center report

The Zoning Ordinance Action Group (ZOAG) originally recommended the *Data Center* ZOAM changes recognizing the importance of the data center industry, recognizing the Zoning Ordinance needed to be brought current to include this relatively new use not within the Ordinance, attempting to remove regulatory uncertainty, and allowing for a more business friendly process as directed by the Board of Supervisors.

The ZOAM underwent changes during the review process and also received comments and concerns from certain neighboring residential uses and the data center industry. The ZOAG has attempted to address the neighboring residential concerns while not losing sight of the original reasons for suggesting an Ordinance change. The neighboring resident's concerns included such issues as sight, setback, and sound. The ZOAG conclusion is the sight and setback issues are not unique to data center uses and the residential concerns relative to sound are best addressed under the design, review, and enforcement processes so as to adhere to the already existing Noise Ordinance. The enforcement mechanism already exists and additional or new noise performance standards are unnecessary. We feel the existing Noise Ordinance is the best way to address the neighboring residential community concerns.

Below is a summary of the ZOAG's findings:

- Noise Ordinance complaints and violations:
  - Recognition that this is a serious issue and that as Loudoun continues to mature as a business base, dealing with the many business, industrial, commercial uses that produce noise is a new necessity, especially if business is located near residential.
  - The existing Noise Ordinance addresses stationary noise across all uses, and the Zoning Ordinance need not single out one specific use for regulation.
  - As part of the maturation of Loudoun, identifying where and how enforcement of the County Noise Ordinance occurs should be a major result of this process.
  - The escalation of the existing, specific, noise complaint should not have taken the months it took to reach the intense situation this did. Finding effective ways to assure how future concerns are addressed should be one outcome of this process.
  - The County should evaluate if their sound measuring equipment is best suited for the existing conditions we are experiencing. Field measurement locations and conditions, type of noise, filtering of other noise, adjustments due to greater height needed at the point of measurement, etc. should be evaluated.
- Regulatory plan/permit review process concerning Noise Ordinance:
  - Excellent presentation from the Noise Consultant. Many excellent recommendations concerning how noise should be further incorporated in the 1) site and building design process, and 2) the building permit regulatory review/approval process.

- The data center industry considers noise an element of their design process. Recognition of this element should be a result of this process.
- While we do not believe it should be a performance standard, we do think that the County should consider focusing on confirmation by applicants of the Noise Ordinance standards and that acoustical designs account for the noise source during the building permit review and issuance stage.
- County should broaden their understanding how a barrier, or distance, or topography, or other measures may have an effect on the noise being created.
- Recognition, the awareness to noise is much greater now. Does any Ordinance need to be changed, or can the greater awareness take care of this?
- County needs to assure they have the technical expertise to review possible noise generations and properly deal with it during the permit issuance process. Utilizing on-call engineering consultants within currently existing contracts may facilitate this.
- Recommendations concerning existing Noise Ordinance:
  - Decibel levels specified in current Ordinance seem to be similar to other jurisdictions.
  - The Noise Consultant's presentation mentioned several areas the County Noise Ordinance could be changed to clarify and specify certain elements. Can Loudoun's Ordinance be improved from strictly a relevance, being current, addressing current technology and building practices, standpoint?
    - Location of test?
    - Which property line for test?
    - Addressing tonal sound?
    - Consideration of height of adjoining structures/use during test (existing and potential).
    - Enforcement, violations, impact?
  - Loudoun County should initiate a review to determine if its Noise Ordinance should be amended to assure noise is adequately addressed considering the above mentioned points. Consultation with the Noise Consultant is recommended in the context of their experience for "what works well" in other jurisdictions. Following this review, determine if a ZOAM should proceed.
- Overall ZOAM issues; ZOAG position:
  - Overall, we are not in favor of the utilization of many of the proposed performance standards where one use is identified to provide extra conditions that may not be required of a similar like use.
  - Definition – we have no further suggested changes.
  - Individual district permitted & SE uses - we recommend that PD-GI not be subject to the performance standards of 5-664 (see updated ZOAM text).
  - 5-664 Performance Standards:
    - Building Facades – we recommend less specific facade wording (see updated ZOAM text).

- Screening of Mechanical Equipment – we have edited the language so as to clarify the first condition and clarify the types of screens if the first condition is not met (see updated ZOAM text).
- Lighting – we have no further suggested changes.
- Height – we recommend elimination of the item.
- Screening of Parking – we recommend elimination of the item. It is adequately covered in other sections of the Ordinance.
- Ped & Bike – we have edited the language so as to clarify the conditions where roadway systems are provided and eliminated the possibility of having onsite and internal connections made. Continuing trails or walks within a property may be impossible to meet due to the high security nature of data centers, and other reasons (see updated ZOAM text).
- Stormwater – we recommend the elimination of the item. It is adequately covered in the FSM and State regulations.
- Sound Level, Noise Study Prior to Occupancy, Testing – we recommend the elimination of the item. This requirement has been discussed in public meetings and found to be difficult, if not impossible to meet due to timing, load generation, and other practical measures.
- Landscaping/Berm – we have edited the language concerning top of the berm, otherwise we have no further suggested changes (see updated ZOAM text).
- Setback:
  - During the public hearing process a setback (200 feet) for uses next to residential has been proposed. While a possible layout was offered, we feel that actual site constraints and other actual site features unique to an individual property makes this impact not so simple. In the end, we are not confident that an additional setback isn't more punitive and could make the development of a site much more constrained and problematic.
  - We suggest looking into a performance incentive next to residential, where there could be positive provisions that encourage providing an additional setback or landscaping. Additional FAR or building height, relief from performance standards, or other provisions that encourage providing an additional setback or landscaping should be considered by a separate ZOAM. A carrot rather than stick approach to gaining the additional setback or landscaping adjacent to residential without constricting requirements.
- Conclusion:
  - We feel strongly that the steps outlined above describe the proper way to deal with sight, setback, and sound issues that have come up during this ZOAM process.
- Revised suggested ZOAM language from ZOAG.
  - Suggested text included.

## ARTICLE 8 DEFINITIONS

Words and terms set forth below shall have the meanings ascribed to them. Any word, term, or phrase used in this Ordinance not defined below shall have the meaning ascribed to such word, term or phrase in the most recent edition of Webster's Unabridged Dictionary, unless in the opinion of the Zoning Administrator, established customs or practices in Loudoun County, Virginia justify a different or additional meaning. For the purpose of this Ordinance, certain words and terms are herein defined as follows:

### A

**Abattoir:** A commercial slaughterhouse.

**Access:** A means of approach or admission.

**Accessory Building:** A non-habitable building located on a lot, the use of which is associated with the principal building and which is located upon the same lot as the principal building. The maximum size of an accessory building is based on the size of the lot on which it is located as follows: up to 5 acres: 2,500 sq. ft., more than 5 acres up to 10 acres: 5,000 sq. ft., more than 10 acres up to 20 acres: 7,500 sq. ft., more than 20 acres: 10,000 sq. ft.

**Active channel:** The area of the stream channel that is subject to frequent flows (approximately once per one and one-half years), and that includes the portion of the channel below where the floodplain flattens.

**Active recreational uses:** Recreational uses requiring constructed facilities for organized activities, such as playing fields, ball courts, and playgrounds.

**Adult Day Care Center:** A licensed facility for four or more aged, infirmed, or disabled adults which is operated during a part of the day only, which provides supplementary care and protection of individuals who reside elsewhere, except a facility or portion of a facility licensed by the State Board of Health or the Department of Mental Health, Mental Retardation and Substance Abuse Service, and the home or residence of an individual who cares for only persons related to him by blood or marriage.

**Adult Entertainment:** Adult entertainment is any medium used for presenting material or performances distinguished or characterized by an emphasis on matter depicting, describing, or relating to 'Specified Sexual Activities' or 'Specified Anatomical Areas' for observation by patrons therein; or limits the presentation of such materials to persons over 18 years of age. This definition shall not apply to a legitimate theatrical performance where nudity is only incidental to the primary purpose of the performance. For the purposes of this definition, "Specified Sexual Activities" is defined as:

1. Human genitals in a state of sexual stimulation or arousal;
2. Acts of human masturbation, sexual intercourse or sodomy;

1 **Cultural Center:** Establishments such as museums, art galleries, botanical and zoological gardens  
2 of an historic, educational or cultural interest which are not operated commercially.

3  
4 **Custom Operator:** An enterprise in which a contractor or other operator agrees to perform all  
5 or some machine operations, providing equipment and labor, for production and related activities  
6 on agricultural sites in exchange for a payment or a payment along with a percentage of profits.  
7 Field operations performed by a custom operator may include field preparation, planting,  
8 cultivating, harvesting, tilling, haymaking, bush hogging, crop storage, hauling, fencing, and  
9 barn construction.

10  
11  
12 D

13 **Data center:** A facility used primarily for the storage, management, processing, and  
14 transmission of digital data, which houses computer and/or network equipment, systems, servers,  
15 appliances and other associated components related to digital data operations. Such facility may  
16 also include air handlers, power generators, water cooling and storage facilities, utility  
17 substations, and other associated utility infrastructure to support sustained operations at a data  
18 center.

19  
20 **Day Care Facilities:** Facilities for the care, protection, and supervision of children or adults on  
21 a regular basis away from their primary residence for less than 24 hours a day. Accessory uses  
22 may include offices, recreation areas, and parking.

23  
24 **Decibel:** A unit used to express the intensity of a sound wave.

25  
26 **Density:** For purposes of this Ordinance, the amount of development allowed on a lot or parcel,  
27 expressed in residential districts as the number of dwelling units per acre and in commercial districts  
28 as the gross floor area of buildings per acre.

29  
30 **Density, Gross Residential:** The number of units divided by the total area of the tract.

31  
32 **Density, Net Residential:** The total number of residential units in a PD-H zoning district divided  
33 by the net land area of land devoted to uses other than commercial and employment uses in such  
34 district.

35  
36 **Density, Net Residential Parcel:** The maximum number of residential dwelling units per acre  
37 allowed on any lot, parcel, or tract of land in a PD-H zoning district.

38  
39 **Developable land:** Any vacant land areas capable of being developed with buildings and  
40 infrastructure.

41  
42 **Development Permit:** Written approval issued by an authorized official, empowering the holder  
43 thereof to do some act not forbidden by law, but not allowed without such authorization. Examples  
44 include, but are not limited to, building, zoning, occupancy and grading permits.

## Section 3-900

### CLI - Commercial Light Industry.

#### 3-901

**Purpose.** The purpose of the CLI district is to accommodate a mix of similar and compatible office and industrial uses, and related supportive commercial retail and service uses along the Route 50/John Mosby Highway Corridor. The CLI district shall have limited traffic and aesthetic impacts on surrounding properties and on supporting public facilities and utilities. The CLI district is intended to generate development through the use of creative design that will enhance the character of the surrounding area and contribute to the development of a distinctive gateway along the Route 50 corridor. The district may allow tourist supportive uses to serve visitors and maximize on opportunities afforded by its proximity to the Air and Space Museum.

#### 3-902

**Size and Location.** The CLI district is mapped only along the eastern end of Route 50 as depicted on the Zoning Map. The rezoning of land to CLI in other areas of the County shall not be permitted.

#### 3-903

**Permitted Uses.** The following uses shall be permitted in the CLI district subject to the requirements and performance criteria of these regulations:

- (A) Adult day care facility, pursuant to Section 3-907(F).
- (B) Animal hospital.
- (C) Bakery, commercial.
- (D) Business service establishment, pursuant to Section 3-907(F).
- (E) Child care center, pursuant to Section 5-609(B) and Section 3-907(F).
- (F) Church, synagogue and temple.
- (G) Conference or training center, pursuant to Section 3-907(F).
- (H) Dwelling, single family, accessory to permitted or special exception uses.
- (I) Educational institution, pursuant to Section 3-907(F).
- (J) Establishments for assembly, fabrication, processing, production and/or manufacturing of goods or products, pursuant to Section 3-907(H).
- (K) Fire and/or rescue station.
- (L) Flex industrial uses, pursuant to Section 5-608.



- 1 (M) Funeral home or mortuary.
- 2 (N) Health and fitness center, pursuant to Section 3-907(F).
- 3 (O) Hotel/Motel, 75 rooms or greater, pursuant to Section 5-611 and  
4 Section 3-907(F).
- 5 (P) Mass transit facilities.
- 6 (Q) Medical care facility, outpatient only, pursuant to Section 3-  
7 907(F).
- 8 (R) Nursery, commercial.
- 9 (S) Office, administrative, business and professional, pursuant to  
10 Section 3-907(F).
- 11 (T) Park, public.
- 12 (U) Police Station.
- 13 (V) Post office, drop off and pick up.
- 14 (W) Postal service, including overnight mail distribution facility.
- 15 (X) Printing service.
- 16 (Y) Public utility service center, without outdoor storage.
- 17 (Z) Research, experimental, testing or development activities.
- 18 (AA) Sewer pumping station.
- 19 (BB) Telecommunications antenna, pursuant to Section 5-618(A).
- 20 (CC) Telecommunications monopole, pursuant to Section 5-618(B)(1).
- 21 (DD) Utility substation, dedicated.
- 22 (EE) Utility substation, distribution, pursuant to Section 5-616.
- 23 (FF) Veterinary service.
- 24 (GG) Warehousing facility.
- 25 (HH) Water pumping station.
- 26 (II) Wholesale trade establishment, pursuant to Section 5-663.

(JJ) Facility for lessons in dance, gymnastics, judo and sports training.

(KK) Data center, pursuant to Section 5-664.

**3-904**

**Special Exception Uses.** The following uses may be permitted by the Board of Supervisors and, if approved, may be subject to certain conditions, pursuant to the provisions in Section 6-1300. In addition, the uses listed below shall be developed in accordance with Section 3-907(F) and all other applicable performance criteria.

(A) Art Gallery.

(B) Automotive Service Station.

(C) Bank or Financial Institution, pursuant to Section 5-659.

(D) Convenience food store with or without gas pumps.

(E) Convention Facility.

(F) Car wash.

(G) Contractor Service Establishment.

(H) Distribution Facility.

(I) Heliport or helistop.

(J) Kennel, indoor, pursuant to Section 5-606.

(K) Motor vehicle rental.

(L) Motor vehicle sales.

(M) Motor vehicle service and repair, light.

(N) Museum or Exhibition Facility.

(O) Personal service establishment.

(P) Private club or lodge.

(Q) Public utility service, with outdoor storage.

(R) Radio, radar and/or television tower.

(S) Restaurant.

- (T) Retail sales establishment.
- (U) Sewage treatment plant.
- (V) Telecommunications monopole, pursuant to Section 5-618(B)(2).
- (W) Telecommunications tower, pursuant to Section 5-618(C)(2).
- (X) Utility substation, transmission, pursuant to Section 5-616.
- (Y) Utility transmission lines, overhead.
- (Z) Water storage tank.
- (AA) Water treatment plant.

**3-905 Lot Requirements.**

- (A) **Size.** Two (2) acres minimum.
- (B) **Width.** 200 feet minimum.
- (C) **Depth.** 200 feet minimum.
- (D) **Yards.**
  - (1) **Adjacent to Roads.** Except where a greater setback is required by Section 5-900, thirty five (35) feet for building; twenty five (25) feet for parking.
  - (2) **Adjacent to Parcel Boundaries.**
    - (a) **With Other Nonresidential Districts.** 25 feet minimum, buildings; 10 feet minimum, parking lot, loading unloading areas, and areas for the collection or storage of refuse. The Zoning Administrator may waive the parking lot yard requirement when necessary to permit shared parking and access arrangements between uses on individual parcels.
    - (b) **With Residential Districts.** 25 feet minimum. No building, parking lots, loading/unloading areas, outdoor storage, or areas for the collection or storage of refuse shall be permitted in any required yard adjacent to a residential zoning district.

**3-906 Building Requirements.**

**Section 4-300**

**PD-OP Planned Development - Office Park.**

**4-301**

**Purpose.** A Planned Development - Office Park district is established primarily for administrative, business and professional offices and necessary supporting accessory uses and facilities, designed with a park-like atmosphere and environmentally sensitive design to accommodate and complement existing natural features including extensive landscaping, low ground coverage by buildings, buildings of moderate height, and careful attention to such aesthetic considerations as location and size of signs, lighting, parking and service areas and the like.

**4-302**

**Size and Location.** When mapped, the district shall be no less than five (5) acres and shall be located:

- (A) On arterial or collector roads.
- (B) In areas served by public water and sewer facilities.
- (C) In areas compatible with other commercial development.
- (D) As envisioned in the Comprehensive Plan.

Incremental and contiguous additions of a minimum of one (1) acre to an existing PD-OP zoning district shall be allowed. Incremental additions must demonstrate their relationship and compatibility with the previously approved district to which it is being added.

**4-303**

**Permitted Uses.** The following uses shall be permitted in any PD-OP district, subject to the requirements and limitations of these regulations:

- (A) Office, administrative, business and professional.
- (B) Bank or financial institution, pursuant to Section 5-659.
- (C) Commuter parking lot.
- (D) Health and fitness center.
- (E) Office, medical and dental.
- (F) Post office.
- (G) Adult day care center.
- (H) Educational institution.
- (I) Recycling drop-off collection center, small, pursuant to Section 5-607.

- (J) Printing service.
- (K) Agriculture, horticulture, forestry, and fishery.
- (L) Business service establishment, pursuant to Section 5-661.
- (M) Conference or training center.
- (N) Library.
- (O) Park.
- (P) Public utility service center, without outdoor storage.
- (Q) Radio and television recording studio.
- (R) Research, experimental, testing or development activities.
- (S) Utility substation, dedicated.
- (T) Water pumping station.
- (U) Sewer pumping station.
- (V) Utility substation, distribution, pursuant to Section 5-616.
- (W) Church, synagogue and temple.
- (X) Child care center, pursuant to Section 5-609(B).
- (Y) Telecommunications antenna, pursuant to Section 5-618(A).
- (Z) Telecommunications monopole, pursuant to Section 5-618(B)(1).
- (AA) Training Facility.
- (BB) Medical care facility, outpatient only.
- (CC) Uses auxiliary to permitted principal uses on a stand-alone basis such as, but not limited to, restaurants including carry-out, and drive-through facilities, personal service establishments, convenience food stores, and automobile service stations, not to exceed a total of ten percent (10%) of the total allowable floor area of the office park shown on a concept development plan.
- (DD) Data center, pursuant to Section 5-664.

**4-304**

**Special Exception Uses.** The following uses may be approved by the Board of Supervisors and, if approved, may be subject to conditions pursuant to the provisions of Section 6-1300.

- (A) Heliport, helistop.
- (B) Hospital, pursuant to Section 5-610.
- (C) Hotel/Motel, pursuant to Section 5-611.
- (D) Radio, radar and/or television tower.
- (E) Utility substation, transmission, pursuant to Section 5-616.
- (F) Utility transmission lines, overhead.
- (G) Telecommunications monopole, pursuant to Section 5-618(B)(2).
- (H) Fire and/or rescue station.
- (I) Golf course.
- (J) Mass transit facilities and stations.
- (K) Personal service establishment.
- (L) Restaurant.
- (M) Sewage treatment plant.
- (N) Water treatment plant.
- (O) Water storage tank.
- (P) Facility for lessons in dance, gymnastics, judo, and sports training.
- (Q) Telecommunications tower, pursuant to Section 5-618(C)(2).
- (R) Police station.
- (S) School, public and private.
- (T) Automobile service station.
- (U) Car wash.
- (V) Convenience food store, pursuant to Section 5-617.

**4-305**

**Lot Requirements.**

**Section 4-400**

**PD-RDP Planned Development - Research and Development Park.**

**4-401**

**Purpose and Intent.** The Research and Development Park is a planned mixed employment park with a comprehensive development plan, which is designed to ensure compatibility between the land-use activities therein and the existing activities and character of the community in which the facility is located. The district objectives are to:

(A) Provide an opportunity for mixed employment development character which allows the mixing of research and development firms, office complexes, certain types of manufacturing, and inter-related land uses.

(B) Encourage linked industries to cluster in a section of the employment center.

~~(C) Allow a Floor Area Ratio (FAR) of up to .60 for a district if specific guidelines contained herein are achieved to the satisfaction of the Board of Supervisors.~~

~~(D) Allow an applicant/landowner to construct buildings in excess of the .60 FAR within the district; however, the overall district FAR approval cannot exceed .60.~~

**4-402**

**Size and Location.** The PD-RDP District shall be located only within a Primary Highway Transportation Improvement District, within a keynote employment area and in accordance with locational criteria designated in the County's Comprehensive Plan. Each PD-RDP District shall be served by public water and sewer. Each district shall be a minimum of twenty (20) acres, except that a two (2) acre minimum shall be permissible for incremental and contiguous additions to a previously mapped district. Incremental additions must demonstrate their relationship and compatibility with the previously approved district to which it is being added.

**4-403**

**Permitted Uses.** The following uses shall be permitted in any PD-RDP district, subject to the requirements and limitations of these regulations:

(A) Office, administrative, business and professional.

(B) Educational institution.

(C) Hotel/Motel, serving as an ancillary and interrelated component of the park.

(D) Post office.

(E) Park or plaza.

- 1 (F) Research, experimental, testing, and/or development activities  
2 where manufacturing, fabrication, production, testing, repair,  
3 storage, sale, or resale of materials, goods, and products which are  
4 purchased and reassembled are incidental to the principal use.
- 5 (G) Uses supportive and complementary to a specific research and  
6 development park and intended primarily to serve businesses and  
7 employees therein, but not to exceed five percent (5%) of the total  
8 acres, excluding street rights-of-way, or five percent (5%) of the  
9 total floor space of the research and development park; including  
10 business service establishments, personal service establishments,  
11 outpatient medical care facilities, health and fitness centers, child  
12 care centers, adult day care centers and restaurants, but excluding  
13 drive- through facilities; and provided such uses are not in free  
14 standing buildings.
- 15 (H) Conference or training center.
- 16 (I) Museum, cultural center, arboretum.
- 17 (J) Commuter parking lot.
- 18 (K) Adult day care center.
- 19 (L) Recycling drop-off collection center, small, pursuant to Section 5-  
20 607.
- 21 (M) Restaurant, dinner theatre.
- 22 (N) Printing service.
- 23 (O) Agriculture, horticulture, forestry, or fishery.
- 24 (P) Art gallery.
- 25 (Q) Bank or financial institution, pursuant to Section 5-659.
- 26 (R) Business service establishment.
- 27 (S) College or university or other educational institution over (50,000)  
28 sq. ft. in floor area.
- 29 (T) Health and fitness center.
- 30 (U) Library.
- 31 (V) Office, medical and dental.
- 32 (W) Performance arts center.



- (X) Public utility service center, without outdoor storage.
- (Y) Radio and television recording studio.
- (Z) Restaurant, carry-out only.
- (AA) Utility substation, dedicated.
- (BB) Water pumping station.
- (CC) Sewer pumping station.
- (DD) Utility substation, distribution, pursuant to Section 5-616.
- (EE) Church, synagogue and temple.
- (FF) Child care center, pursuant to Section 5-609.
- (GG) Telecommunications antenna, pursuant to Section 5-618(A).
- (HH) Training Facility.

(II) Data center, pursuant to Section 5-664.

#### 4-404

**Special Exception Uses.** The following uses, and increases in limits, may be approved by the Board of Supervisors, and if approved, may be subject to certain conditions, pursuant to the provisions of Section 6-1300.

(A) An increase in the maximum building height pursuant to 4-406(B).

~~(B) An increase in the maximum floor area ratio pursuant to 4-406(C).~~

~~(C)(B)~~ Heliport, helistop.

~~(D)(C)~~ Hospital, pursuant to Section 5-610.

~~(E)(D)~~ Radio, radar and/or television tower.

~~(F)(E)~~ Utility transmission lines, overhead.

~~(G)(F)~~ Uses of the type described in Section 4-403(G), but either exceeding the size or freestanding building limitation thereof.

~~(H)(G)~~ Telecommunications monopole, pursuant to Section 5-618(B)(2).

~~(I)(H)~~ Utility substation, transmission, pursuant to Section 5-616.

~~(J)(I)~~ Fire and/or rescue station.

~~(K)~~(J) Golf course.

~~(L)~~(K) Manufacture, processing, fabrication and/or assembly of products such as, but not limited to: scientific and precision instruments, photographic equipment, communication, computation equipment, drugs, medicines, pharmaceutical, household appliances, toys, sporting and athletic goods, die-cut paperboard and cardboard, glass products made of purchases glass, electric lighting and wiring equipment, service industry machines, lithographic and printing processes, industrial controls, radio and TV receiving sets, watches and clocks, bags and containers, sanitary paper products, optical goods, electrical machinery.

~~(M)~~(L) Mass transit facilities and stations.

~~(N)~~(M) Medical care facility, outpatient only.

~~(O)~~(N) Hotel/Motel.

~~(P)~~(O) Personal service establishment.

~~(Q)~~(P) Restaurant.

~~(R)~~(Q) Sewage treatment plant.

~~(S)~~(R) Water treatment plant.

~~(T)~~(S) Water storage tank.

~~(U)~~(T) School, private, accessory to a church.

~~(V)~~(U) Car wash, accessory to a convenience food store, pursuant to Section 5-617.

~~(W)~~(V) Telecommunications tower, pursuant to Section 5-618(C)(2).

~~(X)~~(W) Police station.

~~(Y)~~(X) School, public.

#### **4-405 Lot Requirements.**

(A) **Size.** Two (2) acres minimum, exclusive of major floodplain.

(B) **Yards.**

(1) **Adjacent to roads.** Except where a greater setback is required by Section 5-900, no building shall be permitted closer than thirty-five (35) feet to any roads and no parking

if space is left between buildings, it shall be at least 25 feet in minimum dimension. Covered walkways connecting buildings, or connecting buildings with parking areas are permitted in such yards and may traverse such space.

**4-406 Building Requirements.**

(A) **Lot Coverage.** .55 maximum.

(B) **Building Height.** Forty-five (45) feet provided that a building may be erected to a maximum height of one hundred feet if it is set back from streets or from lot lines that do not constitute boundaries of districts with lower maximum height restrictions, in addition to each of the required minimum yard dimensions, a distance of not less than one (1) foot for each one (1) foot of height that it exceeds the 45-foot limit.

(C) **Floor Area Ratio ~~(FAR)~~.**

~~(+)~~ **~~Maximum FAR Permitted.~~** .60 maximum; up to 2.0 maximum by Special Exception.

**4-407 Use Limitations.**

(A) **Landscaped Open Space.** Landscaped open space on any individual lot shall not be less than .20 times the buildable area of the lot.

(B) **Buffering/Screening.** Landscaping, buffering, and screening shall be used to screen outdoor storage, areas for collection of refuse, loading area and parking from streets and agricultural and residential uses.

(C) **Accessory Structures and Uses.** As an accessory use, parking garages or areas for commuters may be permitted, but spaces for this purpose shall be provided in addition to the required parking spaces provided for in Section 5-1100. Accessory structures and uses other than for commuter parking shall be permitted only where said uses and structures are customarily accessory and clearly incidental and subordinate to the permitted principal use and structures.

(D) **Loading Areas.** No loading area shall be permitted within the required yard of any building. All loading shall be placed at the rear or side of the building. Loading areas shall be screened from view of adjoining land not in the PD-RDP district and from public streets.

**Section 4-500**

**PD-IP Planned Development - Industrial Park.**

**4-501**

**Purpose.** The district is established for light and medium industrial uses, office uses, and necessary supporting accessory uses and facilities, designed with a park-like atmosphere to complement surrounding land uses by means of appropriate siting of buildings and service areas, attractive architecture, and effective landscape buffering.

**4-502**

**Size and Location.** PD-IP districts shall be located in areas served by one or more major arterial or collector roads, by public water and sewer, and consistent with locations identified in the Comprehensive Plan for industrial use. When mapped, the district shall be no less than twenty (20) acres in size. Incremental and contiguous additions of a minimum of one (1) acre to an existing PD-IP zoning district shall be allowed. Incremental additions must demonstrate their relationship and compatibility with the previously approved district to which it is being added.

**4-503**

**Permitted Uses.** The following uses shall be permitted in any PD-IP district, subject to the requirements and limitations of these regulations.

- (A) Adult day care center.
- (B) Agriculture, horticulture, forestry, or fishery.
- (C) Commuter parking lot.
- (D) Distribution facility.
- (E) Facility for lessons in dance, gymnastics, judo and sports training.
- (F) Flex industrial use, pursuant to Section 5-608.
- (G) Office, administrative, business and professional, (i.e. office uses) provided:
  - (1) Office uses are an integral design element of a site plan for an industrial site or park containing not less than 40,000 square feet of gross floor area; and
  - (2) Office uses shall be located no further than 100 feet from the setback, as established by Section 5-900, of an arterial or major collector road; and
  - (3) Office uses shall be the prominent features when viewed from adjacent roadways; and
  - (4) Parking may be located in the side and rear yards and in no case shall parking be located between the building and the

arterial or major collector road. On a corner or through lot, there shall be only one front yard as established by Section 1-205(C); and

(5) Buildings which contain office uses shall be a minimum of twenty-six (26) feet in height.

(H) Manufacture, processing, fabrication and/or assembly of products such as, but not limited to: scientific and precision instruments, photographic equipment, communication, computation equipment, drugs, medicines, pharmaceutical, household appliances, toys, sporting and athletic goods, die-cut paperboard and cardboard, glass products made of purchases glass, electric lighting and wiring equipment, service industry machines, lithographic and printing processes, industrial controls, radio and TV receiving sets, watches and clocks, bags and containers, sanitary paper products, optical goods, electrical machinery.

(I) Post office.

(J) Radio and television recording studio.

(K) Recycling drop off collection center, small, pursuant to Section 5-607.

(L) Research, experimental testing, or development activities.

(M) Wholesale trade establishment, pursuant to Section 5-663.

(N) Uses auxiliary to (which serve the users of) existing permitted principal uses within a specific industrial park, such as, but not limited to restaurants including drive-through facilities, personal service establishments, convenience food stores, and automobile service stations, not to exceed a total of ten percent (10%) of the total allowable floor area of the industrial park shown on a concept development plan.

(O) Bakery, commercial.

(P) Bank or financial institution, pursuant to Section 5-659.

(Q) Dwelling, accessory to a permitted or special exception use.

(R) Printing service.

(S) Warehousing facility, pursuant to Section 4-507(E).

(T) Auction house.

- 1 (U) Business service establishment, pursuant to Section 5-661.
- 2 (V) Health and fitness center.
- 3 (W) Park.
- 4 (X) Postal service, including overnight courier collection and overnight  
5 mail distribution facility.
- 6 (Y) Restaurant, carry-out only.
- 7 (Z) Water pumping station.
- 8 (AA) Utility substation, dedicated.
- 9 (BB) Conference or training center.
- 10 (CC) Sewer pumping station.
- 11 (DD) Utility substation, distribution, pursuant to Section 5-616.
- 12 (EE) Church, synagogue, temple or mosque.
- 13 (FF) Motor vehicle service and repair, light.
- 14 (GG) Telecommunications antenna, pursuant to Section 5-618(A).
- 15 (HH) Telecommunications monopole, pursuant to Section 5-618(B)(1).
- 16 (II) Funeral home, pursuant to Section 5-658.
- 17 (JJ) Training Facility.
- 18 (KK) Interactive Science & Technology Center.
- 19 (LL) Outdoor storage, accessory, up to 10% of lot area.
- 20 (MM) Contractor service establishment, with outdoor storage up to 20%  
21 of lot area, pursuant to Section 5-662.
- 22 (NN) Recreation establishment, outdoor or indoor, provided:
- 23 (1) Parking areas for recreation establishments shall be  
24 designed to enhance the safety of children as they arrive at  
25 and leave the facility; and
- 26 (2) Recreation establishments shall include a designated pickup  
27 and delivery zone, providing at a minimum one (1) parking  
28 space per twenty (20) children and shall be located in

proximity to the recreation establishment in such a way that provides safe and clearly designated access to enter or exit the facility.

(OO) Animal hospital.

(PP) Civic, social, fraternal association meeting place.

(QQ) Educational institution.

(RR) Medical care facility, outpatient only.

(SS) Motorcycle or ATV sales, rental, repair and associated service.

(TT) Data center, pursuant to Section 5-664.

**4-504**

**Special Exception Uses.** The following uses may be approved by the Board of Supervisors pursuant to the provisions of Section 6-1300.

(A) Office, administrative, business and professional, which do not meet the criteria contained in Section 4-503(G).

(B) Golf driving range.

(C) Heliport, helistop.

(D) Hospital, pursuant to Section 5-610.

(E) Hotel/Motel, pursuant to Section 5-611.

(F) Public utility service center with or without storage yard.

(G) Sewage treatment plant.

(H) Utility substation, transmission, pursuant to Section 5-616.

(I) Utility transmission lines, overhead.

(J) Water treatment plant.

(K) Telecommunications monopole, pursuant to Section 5-618(B)(2).

(L) Motor vehicle service and repair, heavy.

(M) Printing service plant.

(N) Child care center, pursuant to Section 5-609(B).

(O) Fire and/or rescue station.

- 1 (P) Dry cleaning plant.
- 2 (Q) Automotive service station.
- 3 (R) Car wash.
- 4 (S) Golf course.
- 5 (T) Motor vehicle rental, with outdoor vehicle storage only.
- 6 (U) Personal service establishment.
- 7 (V) Recreation establishment, outdoor or indoor, which do not meet
- 8 the criteria contained in Section 4-503(NN).
- 9 (W) Recycling drop-off collection center, large, pursuant to Section 5-
- 10 607.
- 11 (X) Mass transit facilities and stations.
- 12 (Y) Water storage tank.
- 13 (Z) Firearm range, archery range, indoor.
- 14 (AA) Outdoor storage, accessory, in excess of 10% of lot area.
- 15 (BB) Parking Lot/Valet Service, Long-Term.
- 16 (CC) School, public.
- 17 (DD) School, private, pursuant to Section 5-623.
- 18 (EE) Telecommunications tower, pursuant to Section 5-618(C)(2).
- 19 (FF) Police station.
- 20 (GG) Camp, day.
- 21 (HH) Contractor service establishment, with outdoor storage in excess of
- 22 20% of lot area, pursuant to Section 5-662.
- 23 (II) Convenience food store, pursuant to Section 5-617.
- 24 (JJ) Restaurant.
- 25 **4-505 Lot Requirements.**
- 26 (A) **Size.** One (1) acre minimum, exclusive of major floodplain.



connecting buildings, or connecting buildings with parking areas, shall be permitted in such yards.

- (b) Where there is more than one building on an individual lot or building site, spacing between such buildings shall be as required for fire protection, but if space is left between buildings, it shall be at least 25 feet in minimum dimension. Covered walkways connecting buildings, or connecting buildings with parking areas are permitted in such yards and may traverse such space.

#### 4-506 Building Requirements.

- (A) **Lot Coverage.** .45 maximum; up to .60 maximum by Special Exception.
- (B) **Building Height.** ~~Sixty-Forty-five~~ (6045) feet maximum provided that a building may be erected to a maximum height of one hundred feet if it is set back from streets or from lot lines that do not constitute boundaries of districts with lower maximum height restrictions, in addition to each of the required minimum yard dimensions, a distance of not less than one (1) foot for each one (1) foot of height that it exceeds the ~~6045~~-foot limit.
- (C) **Floor Area Ratio.** ~~.60-40~~ maximum; up to ~~1.0-60~~ by Special Exception.

#### 4-507 Use Limitations.

- (A) **Accessory Structures and Uses.** As an accessory use, parking garages or areas for commuters may be permitted, but spaces for this purpose shall be provided in addition to the required parking spaces provided in Section 5-1100.
- (B) **Landscaped Open Space.** Landscaped open space on any individual lot shall not be less than .20 times the buildable area of the lot.
- (C) **Screening and Buffering.** Landscaping, buffering, and screening shall be used to screen outdoor storage, areas for collection of refuse, loading area, and parking from streets and agricultural and residential uses.
- (D) **Outdoor Storage, Accessory.**

## Section 4-600

### PD-GI Planned Development - General Industry.

#### 4-601

**Purpose.** This district is established primarily for medium industrial uses with a public nuisance potential, and necessary accessory uses and facilities, built in a well-coordinated and attractive manner to be compatible with surrounding land uses.

#### 4-602

**Size and Location.** Such districts shall be located primarily in the vicinity of Route 606, Dulles International Airport, or in areas served or to be served by public sewer and water, or alternate sewage facility systems approved by the County Health Department. Additional PD-GI districts may be permitted where consistent with the General Plan. When mapped, this district shall be no less than five (5) acres in size. Incremental and contiguous additions of a minimum of one (1) acre to an existing PD-GI zoning district shall be allowed. Incremental additions must demonstrate their relationship and compatibility with the previously approved district to which it is being added.

#### 4-603

**Permitted Uses.** The following uses shall be permitted in any PD-GI district; subject to the requirements and limitations of these regulations:

- (A) Agriculture, horticulture, forestry or fishery.
- (B) Bakery, commercial.
- (C) Distribution facility.
- (D) Dry cleaning plant.
- (E) Heavy equipment and specialty vehicle sales, rental, repair and accessory service.
- (F) Manufacture, processing, fabrication and/or assembly, distribution of products, such as, but not limited to: Scientific and precision instruments, photographic equipment, communication, computation equipment, drugs, medicines, pharmaceutical, household appliances, toys, sporting and athletic goods, die-cut paperboard and cardboard, glass products made of purchased glass, electric lighting and wiring equipment, service industry machines, lithographic and printing processes, industrial controls, radio and TV receiving sets, watches and clocks, bags and containers, sanitary paper products, optical goods, electrical machinery, mobile homes, prefabricated and modular housing and components, dairy products, feed and grain, baked and confectioners' goods, farm machinery, fruit and vegetable processing, canning, storage.

- 1 (G) Motor vehicle service and repair, heavy, with accessory motor  
2 vehicle sales, pursuant to Section 4-607(J).
- 3 (H) Motor vehicle service and repair, light.
- 4 (I) Post office, drop off and pick up.
- 5 (J) Postal service, including overnight courier collection and overnight  
6 mail distribution facilities.
- 7 (K) Printing service.
- 8 (L) Park.
- 9 (M) Public utility service center, with or without outdoor storage yard.
- 10 (N) Radio and television broadcasting, relay station.
- 11 (O) Recycling drop-off collection center, small, pursuant to Section 5-  
12 607.
- 13 (P) Research, experimental, testing, or development activities.
- 14 (Q) Warehousing facility.
- 15 (R) Wholesale trade establishment.
- 16 (S) Water pumping station.
- 17 (T) Commuter parking lot.
- 18 (U) Restaurant, carry-out only.
- 19 (V) Business service establishment, excluding retail sales and outdoor.
- 20 (W) Contractor service establishment, excluding retail sales.
- 21 (X) Flex industrial use, pursuant to Section 5-608.
- 22 (Y) Farm supplies.
- 23 (Z) Auction house.
- 24 (AA) Fruit processing, storage.
- 25 (BB) Home service establishment.
- 26 (CC) Sewer pumping station.

- (DD) Storage, building material or contractors equipment, coal, lumber.
- (EE) Utility substation, distribution, pursuant to Section 5-616.
- (FF) Storage, outdoor accessory.
- (GG) Utility substation, dedicated.
- (HH) Moving and storage company.
- (II) Telecommunications antenna, pursuant to Section 5-618(A).
- (JJ) Telecommunications monopole, pursuant to Section 5-618(B)(1).
- (KK) Telecommunications tower, pursuant to Section 5-618(C)(1).
- (LL) Vehicle wholesale auction, pursuant to Section 5-624.
- (MM) Motor vehicle sales limited to racecars.
- (NN) Training Facility.
- (OO) Health and fitness center, pursuant to Section 4-607(K).
- (PP) Recreation establishment, indoor, pursuant to Section 4-607(K).
- (QQ) Data center.

**4-604**

**Special Exception Uses.** The following uses may be approved by the Board of Supervisors, and, if approved may be subject to certain conditions, pursuant to the provisions of Section 6-1300.

- (A) Asphalt mixing plant, pursuant to 4-607(H).
- (B) Auction facility, livestock, pursuant to 4-607(H).
- (C) Automobile graveyard, junk yard, pursuant to 4-607(H).
- (D) Borrow pit for road construction, pursuant to 4-607(H).
- (E) Storage, bulk gasoline, petroleum products, and natural gas, pursuant to 4-607(H).
- (F) Church, synagogue, temple, and mosque.
- (G) Civic, social, fraternal association meeting place.
- (H) Concrete mixing plant, pursuant to 4-607(H).

- 1 (I) Utility generating plant and transmission facility, pursuant to 4-607  
2 (H).
- 3 (J) Storage, mini-warehouse.
- 4 (K) Firearm range, indoor.
- 5 (L) Sewage treatment plant, pursuant to 4-607(H).
- 6 (M) Solid waste incinerator, landfill or transfer station, pursuant to 4-  
7 607(H).
- 8 (N) Uses auxiliary to permitted principal uses, such as, but not limited  
9 to restaurants, including carry-out but excluding drive-through  
10 facilities, personal care services, banks and financial institutions,  
11 and automobile service stations, not to exceed a total of twenty  
12 percent (20%) of the total developed floor area of the zoning  
13 district.
- 14 (O) Water treatment plant, pursuant to 4-607(H).
- 15 (P) Telecommunications monopole, pursuant to Section 5-618(B)(2).
- 16 (Q) Utility transmission lines, overhead.
- 17 (R) Outdoor sales area, accessory.
- 18 (S) Sawmill, pursuant to 4-607(H).
- 19 (T) Vegetative waste management facility, pursuant to 4-607(H).
- 20 (U) Veterinary service.
- 21 (V) Animal hospital.
- 22 (W) Utility substation, transmission, pursuant to Section 5-616.
- 23 (X) Bus terminal.
- 24 (Y) Fire and/or rescue station.
- 25 (Z) Kennel, pursuant to Section 4-607(H).
- 26 (AA) Material recovery facility, pursuant to 5-607(D), and Section 4-  
27 607(H).
- 28 (BB) Recycling drop off collection center, large, pursuant to Section 5-  
29 607, and Section 4-607(H).

- (CC) Personal service establishment.
- (DD) Motor vehicle rental, with outdoor vehicle storage only.
- (EE) Mass transit facilities and stations, pursuant to Section 4-607(H).
- (FF) Golf course.
- (GG) Automobile service station.
- (HH) Printing service plant.
- (II) Water storage tank.
- (JJ) Health and fitness center, which does not meet the criteria contained in Section 4-607(K).
- (KK) Crematorium.
- (LL) School, private, accessory to a church.
- (MM) Gas pumps accessory to a convenience food store, pursuant to Section 5-617.
- (NN) Car wash, accessory to a convenience food store, pursuant to Section 5-617.
- (OO) Parking Lot/Valet Service, Long-Term.
- (PP) Telecommunications tower, pursuant to Section 5-618(C)(2).
- (QQ) Police station.
- (RR) Outdoor Storage, Vehicles.
- (SS) School, public, pursuant to 4-607(H).
- (TT) Storage of empty solid waste vehicles and containers.
- (UU) Motorcycle or ATV sales, rental, repair and associated service.
- (VV) Recreation establishment, indoor, which does not meet the criteria contained in Section 4-607(K).

**4-605 Lot Requirements.**

- (A) **Size.** One (1) acre minimum.
- (B) **Yards.**

walkways connecting buildings, or connecting buildings with parking areas, shall be permitted in such yards.

- (b) Where there is more than one building on an individual lot or building site, spacing between such buildings shall be as required for fire protection, but if space is left between buildings, it shall be at least 25 feet in minimum dimension. Covered walkways connecting buildings, or connecting buildings with parking areas are permitted in such yards and may traverse such space.

#### **4-606 Building Requirements.**

- (A) **Lot Coverage.** .45 maximum.
- (B) **Building Height.** Forty five (45) feet maximum, provided that a building may be erected to a maximum height of one hundred feet if it is set back from streets or from lot lines that do not constitute boundaries of districts with lower maximum height restrictions, in addition to each of the required minimum yard dimensions, a distance of not less than one (1) foot for each one (1) foot of height that it exceeds the forty five (45) foot limit.
- (C) **Floor Area Ratio.** .40 maximum; up to .60 maximum by Special Exception.

#### **4-607 Use Limitations.**

- (A) **Accessory Structures and Uses.** As an accessory use, parking garages or areas for commuters may be permitted, but spaces for this purpose shall be provided in addition to the required parking spaces provided for in Section 5-1100. Accessory structures and uses other than for commuter parking shall be permitted only where said uses and structures are customarily accessory and clearly incidental and subordinate to the permitted principal use and structures.
- (B) **Landscaped Open Space.** Minimum landscaped open space on any individual lot shall not be less than .20 times the buildable area of the lot. Such landscaped open space shall be used to enhance the appearance of the lot.
- (C) **Screening and Buffering.** Landscaping, buffering, and screening shall be used to screen outdoor storage, areas for collection of refuse, loading areas and parking from streets and agricultural and residential uses.

**Section 5-600**

**Additional Regulations for Specific Uses.** The following additional regulations apply to specific uses as set forth below. These regulations are intended to serve as the minimum standards for these uses, and are not intended to be in substitution for other provisions of this ordinance that may apply, or for additional conditions that may be imposed in connection with special exception or rezoning approvals. Unless otherwise specified, the following additional regulations may be modified by Minor Special Exception in accordance with the provisions of Section 6-1300. Modifications may be approved by the Board of Supervisors upon a finding that such modification to the regulations will achieve an innovative design, improve upon the existing regulations, preserve the County's historic or archeological heritage, or otherwise exceed the public purpose of the existing regulation. No modification shall be granted to any of the underlying zoning district regulations.

**5-601**

**Bed and Breakfast and Rural Guest Establishments.** These establishments may be located in accord with the lists of permitted and special exception uses for the individual zoning districts subject to the following criteria:

**(A) Bed and Breakfast.**

- (1) The owner or manager shall provide full-time management of the establishment at all times when the facility is occupied by guests. The owner or manager may live on the premise.
- (2) The establishment shall not contain restaurant facilities but may provide food service for overnight or other transient guests attending meetings or private parties.
- (3) Weddings, receptions, private parties, meetings and similar activities may be held at the Bed and Breakfast with the maximum number of attendees based on the maximum sleeping capacity of the facility. The hosting of the aforementioned gatherings in excess of the sleeping capacity of the facility may be held up to ten times per calendar year. A minimum of 14 days shall lapse between such gatherings. Written notice shall be provided 30 days in advance of the gathering to the Zoning Administrator. Such notice shall be accompanied by proof of any necessary approvals from County agencies, such as the Health Department and the Fire Department. Additional gatherings may be held in accordance with Section 5-642, Banquet/Event Facility, with the approval of a Minor Special Exception.



(G) No structure shall be located within 500 feet of an existing residential structure.

(H) The total Floor Area Ratio for all structures shall not exceed 0.1.

**5-616 Utility Substations.** The following standards shall apply to the development of utility substations.

(A) Utility substation, transmission.

(1) In all agricultural and residential districts, utility substations shall be located on lots of one (1) acre or more.

(2) In all commercial and industrial districts, utility substations shall be located on at least the minimum lot size of the district.

(B) Utility substation, distribution.

(1) In all agricultural and residential districts, utility substations shall be located on lots of one (1) acre or more.

(2) In all commercial and industrial districts, utility substations shall be located on lots of one (1) acre or more.

(C) All utility substations shall be located in areas consistent with the adopted Comprehensive Plan. A Commission Permit shall be required unless the utility substation is specially delineated in the Comprehensive Plan.

(D) All utility transmission and distribution substations and accessory storage yards shall have a minimum Type Four (4) Buffer Yard provided, however, in areas where required utility connections preclude installation of the required canopy and understory trees of the Type 4 Buffer Yard, such trees may be replaced with shrubs, at a rate double to that of the required canopy and understory trees.

(E) Such utilities may be accessed by a private access easement.

**5-617 Freestanding Convenience Food Stores.** Except to the extent permitted on smaller lots in the Rural Commercial (RC) zoning district.

(A) Convenience food stores shall be located on lots of 50,000 square feet or greater.

(B) Convenience food store shall contain no more than 5,000 square feet of retail area.

- (J) **Noise Standards.** The maximum allowable dB(A) level of impulsive sound from the site, as measured at the property line, shall not exceed 55 dB(A).

**5-661 Business Service Establishment.**

- (A) Retail sales to the general public shall not exceed twenty percent (20%) of the gross floor area devoted to the business service establishment.

**5-662 Contractor Service Establishment.**

- (A) Retail sales to the general public shall not exceed ten percent (10%) of the gross floor area devoted to the contractor service establishment.
- (B) Outdoor storage of equipment, supplies, and construction trailers are permitted, provided such are fully screened from public roads and adjacent lots where contractor service establishments are permitted.

**5-663 Wholesale Trade Establishment.**

- (A) Retail sales to the general public shall not exceed twenty percent (20%) of the gross floor area devoted to the wholesale trade establishment.

**5-664 Data Center.** The following standards shall apply to data centers in the CLI, PD-OP, PD-RDP, and PD-IP zoning districts.

- (A) Principal Building Facades.** Principal building facades shall include all building facades that face adjacent public roads. Principal building facades associated with new construction shall meet the following standards:

(1) Principal building facades shall avoid the use of undifferentiated surfaces by including at least two (2) of the following design elements: change in building height, building step-backs or recesses, fenestration, change in building material, pattern, texture, color, or use of accent materials.

(2) When a building has more than one principal facade, such principal building facades shall be consistent in terms of design, materials, details, and treatment.

- (B) Screening of Mechanical Equipment.** In order to minimize visibility from adjacent roads and adjacent properties, ground level

and roof top mechanical equipment shall be screened. This screening may be provided by a principal building. Mechanical equipment not screened by a principal building shall be screened by a visually solid fence, screen wall or panel, parapet wall, or other visually solid screen that shall be constructed of materials compatible with those used in the exterior construction of the principal building. Notwithstanding the requirements of this section, mechanical equipment located in a manner found to have no adverse impact on adjacent roads and adjacent properties, as determined by the Zoning Administrator, shall not be required to be screened.

(C) **Exterior Lighting.** All exterior lighting shall be designed and constructed with cutoff and fully shielded fixtures that direct light downward and into the interior of the property and away from adjacent roads and adjacent properties.

(D) **Pedestrian and Bicycle Facilities.**

(1) **Provision of Sidewalks and/or Trails.** Sidewalks and/or trails for pedestrian and/or bicycle access shall be provided, at a minimum, along any side of a public road that abuts the property upon which the data center is located.

(2) **Sidewalk and/or Trail Connections.** To provide for future sidewalk and/or trail connections, the sidewalks and/or trails for pedestrian and/or bicycle access provided pursuant to Section 5-664(D)(1) above shall be equivalent to any other sidewalk and/or trail for pedestrian and/or bicycle access that is located on the same side of the public road, and within 500 feet, of the property upon which the data center is located.

(E) **Buffer Yard Requirement.** In lieu of the buffer yard requirement in Table 5-1414(A) of Section 5-1414, any side/rear yard abutting property that is not developed for commercial or industrial uses located in any one of the following zoning districts: CR, JLMA, TR, R, PD-H, PD-CV, PD-RV, and PD-AAAR shall include Type 4 buffer yard required plantings installed on an earthen berm that has a minimum height of six (6) feet and a slope not steeper than 2:1. The Type 4 buffer yard width and required plantings shall be as set forth in Table 5-1414(B) of Section 5-1414 and installed in accordance with the requirements of Section 5-1400, Buffering and Screening. Notwithstanding the requirements of this section, use of natural topography and preservation of existing vegetation, supplemented by new vegetation, if needed, may be substituted for the above requirements when found by the County Urban Forester

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to provide screening at the density, depth, and height equivalent to the Type 4 buffer yard with earthen berm.

DRAFT

**Section 5-1100**

**Off-Street Parking and Loading Requirements.**

**5-1101**

**Compliance Required.**

(A) **General Requirement.** Except as provided elsewhere in this Ordinance, there shall be provided, at the time of the erection of any building, or at the time any principal building is enlarged or increased by adding dwelling units, guest rooms, seats or floor area, or before conversion from one type of use or occupancy to another, permanent parking and off-street loading space in the amount specified and pursuant to the requirements of this Section. Parking space may be provided in a garage and properly surfaced open area. In residential districts where streets and travelways have been designed pursuant to County and VDOT standards to accommodate on-street parking, such on-street parking can be used to meet the requirements of this section for up to one parking space per dwelling.

(B) **Application to Addition or Change in Use.** When a change in intensity of use of any building or structure would increase the required parking by ten (10) or more spaces or ten (10) percent, whichever is greater, cumulatively from the date of this Ordinance, through an addition or change in the number of dwelling units, gross floor area, gross leasable area, seating capacity, or other units of measurements specified herein, the increment of additional required parking shall be provided in accordance with this Section unless an adjustment is permitted per subparagraph 5-1102(F) below. If fewer than ten (10) spaces or ten (10) percent, whichever is greater, are required by a change or series of changes in use, the Zoning Administrator may waive up to the incremental required number of parking spaces, after determining that the granting of the waiver will not be detrimental to the public welfare and will be consistent with the County of Loudoun Comprehensive Plan.

(C) **Review of Parking and Loading Facilities Plan.** Each application for a subdivision, site plan, zoning permit, or certificate of occupancy shall include information as to the location and dimensions of parking and loading space; and the means of ingress and egress to such spaces. This information shall be in sufficient detail to determine if the requirements of this Ordinance are met and shall contain such information as is required by applicable provisions of the Land Subdivision and Development Ordinance.

(D) **Procedures for Reduction of Parking.** No existing parking or loading space, and no parking or loading space hereafter provided, which meets all or part of the requirements for parking or loading space set forth in these regulations, shall be reduced or eliminated.

1 Reductions in parking and loading spaces may be permitted where  
2 spaces are no longer required by these regulations or alternative  
3 spaces meeting the requirements of these regulations are provided.

4 **5-1102 Number of Parking and Loading Spaces Required.**

5 (A) **Standards for Computation.**

6 (1) **Floor Area.** Gross Floor Area, GFA, as used in this  
7 section shall be as defined in Article VIII of this Ordinance.

8 (2) **Building Capacity.** The capacity of the building expressed  
9 in number of persons shall be determined by the Fire  
10 Prevention Code adopted by the County of Loudoun.

11 (3) **Fraction of a Space.** When the calculation of the number  
12 of required parking and loading spaces results in a  
13 requirement of a fractional space, any fraction up to and  
14 including one-half (1/2) shall be disregarded, and fractions  
15 of over one-half (1/2) shall be interpreted as one (1) whole  
16 parking or loading space.

17 (4) **Commercial Vehicles.** In addition to the requirements in  
18 the tables below, one (1) off-street parking space shall be  
19 required for each commercial vehicle which is directly  
20 associated with permitted and special exception uses, and  
21 which is to be parked on the premises during normal  
22 business hours. Required loading spaces may be credited  
23 as part of the total space needed for commercial vehicles.

24 (B) For the purposes of this Article only, and for calculating parking  
25 and loading requirements hereunder, uses are grouped as follows:

26 (1) **Residential Uses.**

27 (a) **Single Family Dwellings**, detached houses and  
28 duplexes, townhouses and other single family  
29 attached dwelling units.

30 (b) **Multi Family Dwellings**, includes condominium  
31 and apartment buildings where common vehicular  
32 entrances, parking areas etc., are provided for more  
33 than one unit.

34 (c) **Elderly Housing**, any multifamily building that is  
35 occupied not less than 90% by persons 60 years of  
36 age or older.

(c) **Medical Offices**, dentists, physicians, chiropractors, psychiatrist/psychologist, nonresidential psychiatric alcoholic and narcotic treatment centers, dental and medical laboratories, medical clinics and outpatient surgery/treatment centers, offices for the fitting and repair of hearing aids, prosthetic appliances, etc.

(5) **Industrial/Manufacturing**, including all uses defined in the permitted and special exception use tables, including flex-industrial use.

(6) **Storage/Processing/Wholesaling**, including all uses defined in the permitted and special exception~~conditional~~ use tables, except as provided below:

(a) **Mini Warehouse**, with secured, individual storage units which are leased for a fee to individual companies or persons.

(b) Data center.

(c) Vehicle wholesale auction.

(7) **Materials Supply and Construction Uses**, including all uses defined in the permitted and special exception use tables.

(8) **Communication and Private Utility Uses**, including all uses defined in the permitted and special exception use tables.

(9) **Governmental Uses**, including all uses defined in the permitted and special exception use tables.

(10) **Educational Uses**, including all uses defined in the permitted and special exception use tables.

(11) **Cultural, Recreational, and Entertainment.**

(a) **Public Assembly**, including art galleries, auditoriums, community and recreation centers, libraries, museums, movie and drama theatres, stadiums and arenas, outdoor theatres/festival/drama, stadiums and arenas, funeral homes, mortuaries, crematoria, civic/social/fraternal association meeting places and mausoleums.

Table 5-1102		
Use	Parking Spaces Required	Loading Spaces Required
General Offices and Medical Offices	4/1,000 sq. ft. of GFA for up to 30,000 sq. ft.; 3.3/1,000 sq. ft. of GFA thereafter	None for the first 30,000 sq ft then one/100,000 sq ft thereafter
Financial Institutions	2.5/1,000 sq. ft. of GFA; stacking space for drive-through windows to be determined by Zoning Administrator	None for the first 10,000 sq ft GFA then one/50,000 sq ft up to 10,000 sq ft plus one/10,000 sq ft thereafter
<u>Industrial/Manufacturing</u>	2/1,000 sq. ft. of GFA plus any required spaces for office, sales or similar space	1/25,000 sq ft GFA up to 500,000 sq ft plus one for the next 50,000 sq ft plus one/ 100,000 sq ft thereafter
<u>Storage/Processing/Wholesaling</u>	0.5/1,000 sq. ft. GFA plus any required spaces for office, sales, etc.	One the first 50,000 sq ft GFA plus one space/100,000 sq ft thereafter
Mini Warehouse, multi story or single entrance	3 spaces at the office plus 1 space per employee.	None
<u>Data center</u>	<u>1/employee on the major shift</u>	<u>1/Building</u>
Vehicle Wholesale Auction	1/3 employees 1/60 vehicle storage space	1/25,000 sq. ft. of GFA
<u>Materials Supply and Construction</u>	0.5/1,000 sq. ft. GFA plus any required spaces for office, sales, etc.	1/25,000 sq. ft. GFA up to 500,000 sq. ft. plus one for the next 50,000 sq ft plus one/100,000 sq ft thereafter.
<u>Communication and Private Utility</u>	1/1.5 employees on the major shift.	1/25,000 sq. ft. GFA up to 500,000 sq. ft. plus one for the next 50,000 sq. ft. plus one/100,000 sq. ft. thereafter.
<u>Governmental</u>	4/1,000 sq. ft. of G.F.A. administrative offices; other as determined by Zoning Administrator	As determined by Zoning Administrator
<u>Educational</u>	1/Classroom and other room used by students plus .2/student over driving age	1/100,000 sq.ft.GFA
<u>Cultural/Recreational/ Entertainment</u>		



## Division C: Sign Regulations

### Section 5-1200 Sign Regulations.

#### 5-1201

**Purpose.** The visual environment has an effect on, and is an important element of, safeguarding life, health, and property, and preserving the natural beauty, historic and cultural attributes, unique character, and attractiveness of communities. Careful control of signs can protect the general welfare, safety of individuals, and property values, support economic vitality and viability, and enhance Loudoun's communities overall. The intent of this section, therefore, is to establish well-designed signage that contributes in positive ways to Loudoun County's visual environment while expressing local character and helping to develop a distinctive image of the County. The primary purposes of sign regulations are (1) to help people find a location without difficulty or confusion, and (2) to clearly identify places of business and communities. Signs shall be considered accessory components of an overall composition of architectural elements, not as dominant architectural elements by themselves. Signs shall be subordinate to the structures and land use functions that they reference. This Section establishes standards for the location, design, construction, installation, display, and safety of signs. More specifically, while not restricting freedom of expression, regulations are hereby established to: (1) Ensure the compatibility of signs with land uses, (2) Promote orderly, attractive, and effective signage, (3) Establish the type, number, physical dimensions, design, and location of signs, (4) Treat similar types of signs consistently, and (5) Minimize competing demands for visual attention to graphic messages or displays by preventing and reducing visual clutter.

#### 5-1202

#### General Provisions.

(A) **Signs Prohibited.** Signs with any of the following characteristics are prohibited:

- (1) **Other than on property or structure to which it directs attention.** Is located anywhere other than on the property or structure to which it directs attention or to which it is appurtenant, except (a) any sign erected or maintained by or under the supervision of county or other governmental authority or the Virginia Department of Transportation, and (b) any other off-site sign which is specifically provided for in this Section 5-1200.
- (2) **Outlines any building or sign with exposed neon illumination or other permanent lights.** Outlines any building, sign, or part thereof with exposed neon illumination or other permanent lights, except as specifically permitted with the approval of a Sign Development Plan.
- (3) **On trees, fences, public utility pole, etc.** Is fastened, placed, painted, pasted or attached in any way to, in or upon any tree, fence, public utility pole, rock, curbstone, sidewalk, lamp post,

**Table 5-1204(D)**  
**Sign Requirements Matrix**

SIGN CATEGORY (See Note 6)		Total Aggregate Sign Area	Max. Number of Signs	Max. Area of Any One Sign	Ground Mounted Sign		Ground Mounted Background Structure			Illumination Permitted	Min. Setback From R.O.W. (See Note 2)	Type Permitted	Max. Height (See Note 3)	Additional Requirements
					Bonus Multiplier	Max. Area of Any One Sign	Bonus Multiplier (See Note 1)	Max. Area of Background Structure	Max. Height of Background Structure					
(d)	Ground Floor Tenants in Office Buildings		1 / Tenant	20 SF						Yes		Building Mounted	Mount Below 2 <sup>nd</sup> Floor Windows	Maximum height of letters is 24 Inches.
(e)	Directory Sign - Office Buildings		1 / Building Entrance	15 SF						Yes		Freestanding	6 FT	
												Building Mounted	6 FT	
(f)	Directory Sign in PD-CC(CC), PD-CC(SC), PD-CC(RC), PD-SA, PD-TC, PD-TREC, PD-TRC, and PD-MUB		2 / Development	25 SF						Yes		Freestanding	7 FT	
(g)	Flex/Industrial/Warehouse/ <u>Data center</u> Buildings and Signs for Businesses in MR-HI, PD-IP, and PD-GI	½ SF / LF of Building Frontage	1 / Tenant	100 SF						Yes		Building Mounted	Roofline	
(h)	Auto Service Station (including convenience store, car wash & repair)	100 SF	6	30 SF						Yes	5 FT	Freestanding	15 FT Pole Mounted 8 FT Ground Mounted	Total permitted sign area excludes state mandated labeling of dispensing devices and federally mandated gasoline price posting.
												Building Mounted	Roofline	
(i)	Auto Dealer	20-120 SF (see additional requirements column)	6	20 SF	1.5	30 SF	1.5	45 SF	8 FT	Backlight	10 FT	Freestanding	15 FT	Base sign 20 SF Used car 20 SF Each new car dealership = 20 SF
												Building Mounted	Roofline	

**Section 5-1400 Buffering and Screening.**

**5-1401**

**Purpose.** The purpose and intent of this Section is to facilitate the creation of a convenient, attractive and harmonious county; to conserve natural resources including adequate air and water; to preserve the character of an area by preventing or mitigating the harmful effects of one use on another use; and to preserve and promote the health, safety and general welfare to the public. More specifically, this Section is intended to mitigate the effects of uses on adjacent uses by requiring a screen and/or buffer between the uses in order to minimize the harmful impacts of noise, dust and other debris, motor vehicle headlight glare or other artificial light intrusion, and other objectionable activities or impacts conducted on or created by an adjoining or nearby use. Also, this Section is intended to require the landscaping of parking lots in order to reduce the harmful effects of heat and noise and the glare of motor vehicle lights; to preserve underground water reservoirs and to permit the return of precipitation to the ground water strata; to enhance the natural drainage system and ameliorate storm water drainage problems; to reduce the level of carbon dioxide and return pure oxygen to the atmosphere; to prevent soil erosion; and to provide shade.

**5-1402**

**Applicability.**

(A) The provisions of this Section shall apply to all development where site plans and/or subdivisions are filed in accordance with the provisions of Section 6-700 of this Ordinance or the Land Subdivision and Development Ordinance.

(B) The provisions of this Section are intended to complement the regulations of Section 5-1300 of this Ordinance. Trees planted to fulfill the Canopy requirements of Section 5-1300 may also fulfill the Buffering and Screening requirements of this Section. However, where any provision of this Section imposes restrictions or standards different from those of Section 5-1300 or any other County ordinance or regulation or other provision of law, whichever provisions are more restrictive or impose higher standards shall control, unless the intent is clearly otherwise.

**5-1403**

**Standards.** The following standards shall apply to the installation and maintenance of all landscaping and screening required by the provisions of this Section.

(A) The planting and maintenance of all trees and shrubs shall be in accordance with the provisions of Facilities Standards Manual, and the following requirements:

**Table 5-1414(A)**

PROPOSED LAND USE GROUPS	ADJACENT LAND USE GROUPS												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Group 1 Dwelling, Single Family Detached	N/A	1	1	2	2	2	3	3	4	4	3	4	2
Group 2 Dwelling, Single Family Attached	1	N/A	1	2	2	2	3	3	4	4	3	4	2
Group 3 Dwelling, Multi-Family Congregate Housing Facility Continuing Care Facility Orphanage or other similar institutions	1	1	N/A	1	1	1	1	2	4	4	3	4	2
Group 4 Day Care Center Church, Chapel Nursery School Elementary School	2	2	1	N/A	1	1	2	2	3	4	3	4	2
Group 5 Middle and High School Community & Recreation Center, and Library Auditorium, Performing Arts Center and Assembly Hall, and Theater (indoor) Municipal and Governmental Building and Structure Fire, Police, and Rescue Station Medical Care Facility Hospital	2	2	1	1	N/A	1	1	2	3	4	3	4	N/A
Group 6 Financial Institution Office Business Service Establishment Retail Sales Establishment Health & Fitness Center Funeral Home, Mortuary, Crematory Personal Service Establishment	2	2	1	1	1	N/A	N/A	N/A	3	4	2	4	N/A
Group 7 Restaurant Hotel/Motel	3	3	1	2	1	N/A	N/A	N/A	3	4	N/A	4	N/A
Group 8 Drive-in Bank Facility Fast Food Restaurant Drive Through Restaurant Auto Service Station Car Wash	3	3	2	2	2	N/A	N/A	N/A	N/A	2	2	4	N/A

**Table 5-1414(A)**

PROPOSED LAND USE GROUPS	ADJACENT LAND USE GROUPS												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Mobile Home Sales and Service Motor Vehicle Sales and Service Parking Lot/Valet Service Flex Industrial Warehousing & Storage Facility <u>Data center</u>													
Group 9 Utility Transmission Facility Public Utility Service Center, Storage Yard Telecommunication Facility Radio & Television Broadcasting Station, including Recording Studio Municipal or Governmental Storage Yards & Related Facility Water Treatment and Distribution Facility Kennel, outdoor	4	4	4	3	3	3	3	N/A	N/A	N/A	2	3	N/A
Group 10 Bus, Rail, and Truck Terminal Outdoor Storage, Vehicles Newspaper Offices and Distribution Service Lumber & Building Material Yard and Storage Facility Wholesale Trade Office and Storage Facility Heavy Equipment Sale, Rental, and Service Sand, Gravel, Coal & Earth Sales and Storage Facility Boat Sales, Storage and Service Recycling Center Vehicle Wholesale Auction	4	4	4	4	4	4	4	2	3	N/A	N/A	2	N/A
Group 11 Wholesale Printing Laundry, Cleaning, and Dyeing Plant Facilities for Manufacturing, Processing, Assembly, Packaging, Bottling, and Canning	3	3	3	3	3	2	N/A	2	2	N/A	N/A	3	N/A
Group 12 Asphalt or Concrete Mixing Plant	4	4	4	4	4	4	4	4	3	2	3	N/A	N/A

March 12, 2014

The Honorable Suzanne Volpe  
Algonkian District Supervisor &  
Chair of the Loudoun County  
Transportation Land Use Committee

RE: ZOAM 2013-0003 Data Center and Miscellaneous Commercial/Industrial Amendments.

Dear Supervisor Volpe,

Sabey Data Center Properties ("Sabey") has been keenly interested in the work of the Zoning Ordinance Action Group ("ZOAG"), its Data Center Subcommittee and Staff in the preparation and review of the above referenced ZOAM. We respectfully urge the Transportation Land Use Committee to endorse this important work and to recommend that the Board of Supervisors adopt the ZOAM at its earliest opportunity.

Sabey is in the process of developing its 33 acre site in Ashburn with three data center buildings. As part of its leasing efforts, it is extremely important that Sabey can easily demonstrate to its prospective clients that data center uses are permitted on its property. The proposed ZOAM and revised language before you will allow greater clarity to potential data center tenants than the current "office" designation.

In addition, the proposed zoning revisions will allow additional flexibility to develop data center uses in appropriate locations, without potentially lengthy legislative applications. We acknowledge new data centers will be the subject of additional design standards and appreciate the work of the ZOAG Subcommittee to review these standards in detail and consider comments and concerns from the data center industry.

Finally, we would like to note Staff's diligence and responsiveness throughout the processing of the ZOAM, during which Sabey asked Staff two important questions. The first question concerned vesting, and we received assurance from Staff that Sabey's existing conditional site plan approval for its property would be deemed vested under existing regulations. Similarly, Sabey asked for confirmation of the definition of the word "abutting" as used in the draft Ordinance revisions and received assurance that abutting will be deemed immediately adjoining and not across a public street. Since these matters are not covered in the draft Ordinance revisions, Sabey is relying on the feedback it received from Staff.

Should you have any questions, please do not hesitate to contact me.

Sincerely,



Mikel Hansen, Senior VP of Operations

cc    The Honorable Eugene A. Delgaudio, Sterling District Supervisor  
      The Honorable Janet S. Clarke, Blue Ridge District Supervisor  
      The Honorable Geary M. Higgins, Catoctin District Supervisor  
      The Honorable Scott K. York, Chairman of the Board of Supervisors  
      Buddy Rizer, Director of the Loudoun County Department of Economic Development  
      Nicole Dozier, Loudoun County Zoning Administrator